

INTERNATIONAL SEARCH REPORT

National Application No

GB/GB2004/003429

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 F04C18/02 F04C23/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F04C F01C F04D G01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 696 627 A (ASANO HIDEO ET AL) 29 September 1987 (1987-09-29)	1,3-5
Y	figures 1,2 column 4, line 63 - column 5, line 23	8-12
X	EP 0 679 810 A (BOC GROUP PLC) 2 November 1995 (1995-11-02) the whole document	1,2,4,5
X	US 2003/059327 A1 (FUJIOKA TAMOTSU ET AL) 27 March 2003 (2003-03-27) figures 1,2 column 4, paragraph 29 - paragraph 33 claim 7	1,3-5
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

20 October 2004

Date of mailing of the international search report

28/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Lequeux, F

INTERNATIONAL SEARCH REPORT

International Application No.

.../GB2004/003429

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 116 875 A (KOLB ROLAND ET AL) 12 September 2000 (2000-09-12) figures 1,2,5a-5d column 4, line 22 - line 63	1,3-7
Y	US 4 919 599 A (REICH GUNTER ET AL) 24 April 1990 (1990-04-24) figures 3,6 column 2, line 59 - column 3, line 20 column 3, line 59 - column 4, line 3 column 4, line 47 - line 65	8-10,12
A	US 5 228 838 A (GEBELE THOMAS ET AL) 20 July 1993 (1993-07-20) the whole document	8-10,12
A	US 4 735 084 A (FRUZZETTI PAUL R) 5 April 1988 (1988-04-05) figures 1,2 column 3, line 47 - column 5, line 42	8-10
Y	US 5 733 104 A (GANSCHOW OTTO ET AL) 31 March 1998 (1998-03-31) figures 1,2,6 column 2, line 52 - line 60 column 5, line 21 - column 6, line 22	8-11

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/003429

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4696627	A	29-09-1987	JP	62038888 A	19-02-1987
			JP	62041990 A	23-02-1987
EP 0679810	A	02-11-1995	EP	0679810 A2	02-11-1995
			JP	7301185 A	14-11-1995
			US	5626469 A	06-05-1997
US 2003059327	A1	27-03-2003	JP	2003097456 A	03-04-2003
US 6116875	A	12-09-2000	AT	229612 T	15-12-2002
			CA	2245629 A1	26-02-1999
			CN	1210936 A	17-03-1999
			DE	59806600 D1	23-01-2003
			EP	0899423 A1	03-03-1999
			JP	11132162 A	18-05-1999
US 4919599	A	24-04-1990	EP	0344345 A1	06-12-1989
			DE	3865012 D1	24-10-1991
			JP	2110335 A	23-04-1990
US 5228838	A	20-07-1993	DE	4213763 A1	28-10-1993
US 4735084	A	05-04-1988	DE	3676933 D1	21-02-1991
			EP	0218458 A2	15-04-1987
			JP	1785519 C	31-08-1993
			JP	4078936 B	14-12-1992
			JP	62087825 A	22-04-1987
US 5733104	A	31-03-1998	DE	4331589 A1	30-06-1994
			EP	0603694 A1	29-06-1994
			JP	6280785 A	04-10-1994